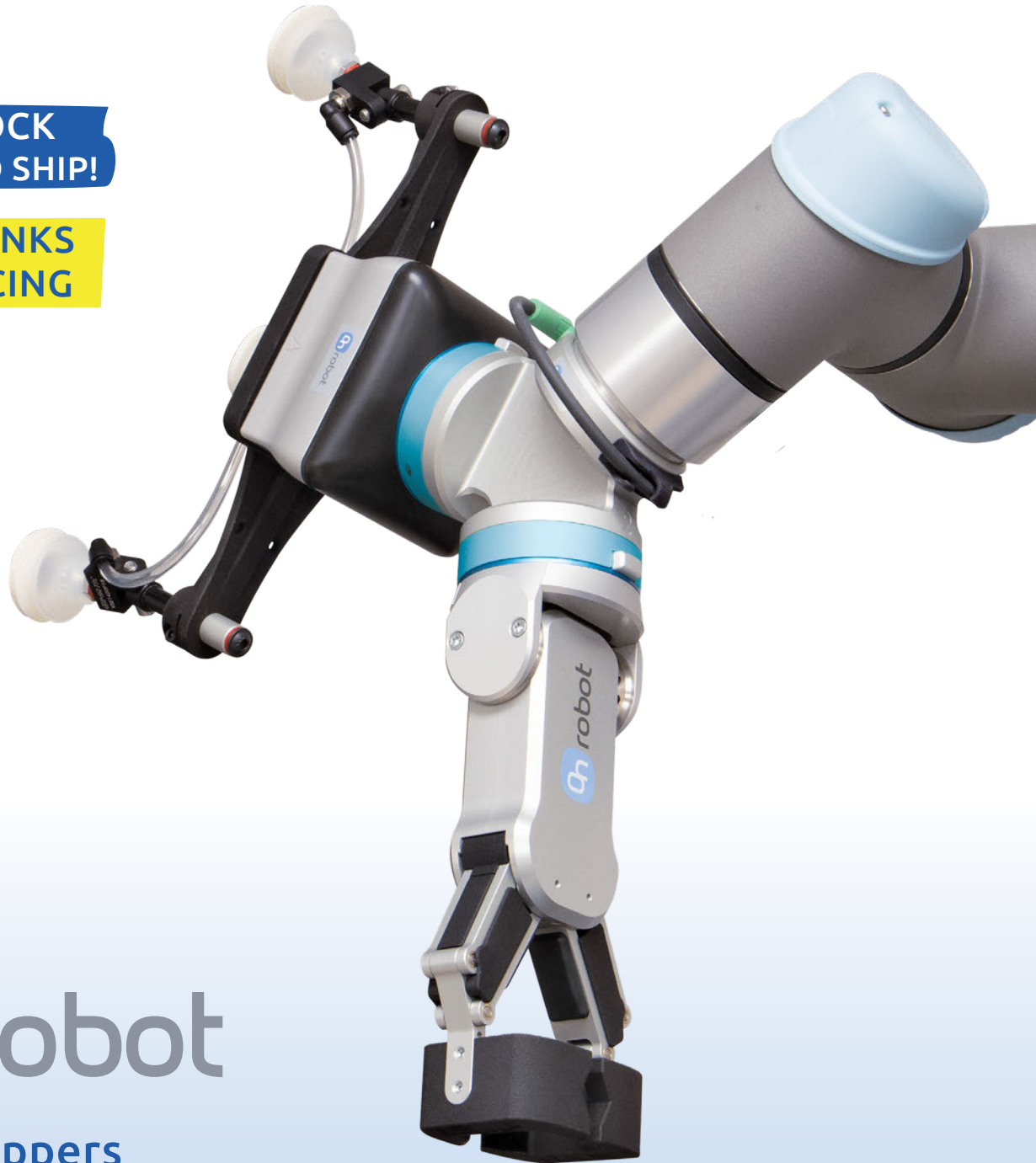




EOAT for Cobots

IN-STOCK  
READY TO SHIP!

WITH LINKS  
TO PRICING



Smart Grippers  
Electric Vacuum Generators  
Force / Torque Sensors  
Quick Changers

## ***OnRobot End Effectors for Cobots***

Adding to our existing EOAT for Cobot products, EMI now stocks and supports OnRobot's line of Adaptive, Collaborative Grippers, Quick Changers, Vacuum EOAT, and Force / Torque Sensors.

In-Stock and ready to Plug & Produce, EMI can provide advanced Cobot handling solutions coupled with EOAT engineering service, extensive EOAT component line up and 3D printing capabilities.

***EMI has the largest In-Stock selection of Collaborative Robot EOAT kits and components, ready to ship the same day.***

***Have a bright idea for a Cobot Application?***

Email [Cobots@EMICorp.com](mailto:Cobots@EMICorp.com) or call 216-535-4848 to get in touch with an experienced engineer.



## OnRobot End Effectors for Cobots

Quick Changer

p.2



Force/Torque Sensor Quick Changer

p.6



Dual Quick Changer

p.4



RG2 Gripper

p.8



RG6 Gripper

p.12



2FG7 Parallel Gripper

p.12



3FG15 Three-Jaw Gripper

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MG10 Magnet Gripper

p.15



Soft Gripper Actuator

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VGC10 Customizable Vacuum Gripper

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VG10 Vacuum Gripper with Dual Zone

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VGP20 Vacuum Gripper with Quad Zone

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2FGP20 Palletizing Gripper with Vacuum

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Compute Box

p.24



Angle Offset Brackets

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## Quick Changer for Collaborative Robots



#8225  
Robot Side



#8221  
EOAT Side

The **Robot Side Quick Changer** enables easy and fast tool changing. It is fully collaborative with no sharp edges, which makes it easy and safe for human interaction. The Quick Changer can handle up to a 20kg payload and has a low built-in height and weight.

Compatible with eSeries UR, and any other cobot that uses the ISO-9409-1-50-4-M6 mounting pattern and can be easily adapted to even more robots.

Built into every OnRobot gripper, the **EOAT Side Quick Changer** is now available for all EOAT which makes it easy to click into your cobot. With a 20kg max. payload, this quick changer is a simple way to swap your EOAT in between applications.

Use with pneumatic grippers, degating kits, or any third party product compatible with ISO-9409-1-50-4-M6 bolt pattern.

Quick#	Part#	Description	Weight	Price
8225	OR-QC-A1*	Robot Side Quick Changer	0.06kg / 0.13lbs	<a href="#">CLICK HERE</a>
8221	OR-102014	EOAT Side Quick Changer	0.14kg / 0.31lbs	<a href="#">CLICK HERE</a>

\*Not compatible with CB3 series UR, see #8224 below.

8224	OR-102326	Robot Side Quick Changer for CB Series	0.093kg / 0.21lbs	<a href="#">CLICK HERE</a>
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Technical Specs	
Maximum permissible force	400 N (89.9 lbf)
Maximum permissible torque	50 Nm
Rated payload	20kg (44 lbs)
Repeatability	+/- 0.02mm

### M8 8-Pin Tool Flange Connection for UR



#### Tool Flange Connection Cables

Quick#	Part#	Description	Price
8230	OR-102113*	M8 8-Pin Female Tool Flange for UR	<a href="#">CLICK HERE</a>
8237	OR-107456**	M8 8-Pin Female Tool Flange for Fanuc CRX	<a href="#">CLICK HERE</a>
8239	OR-113690	Cable Kit for ABB Gofa	<a href="#">CLICK HERE</a>

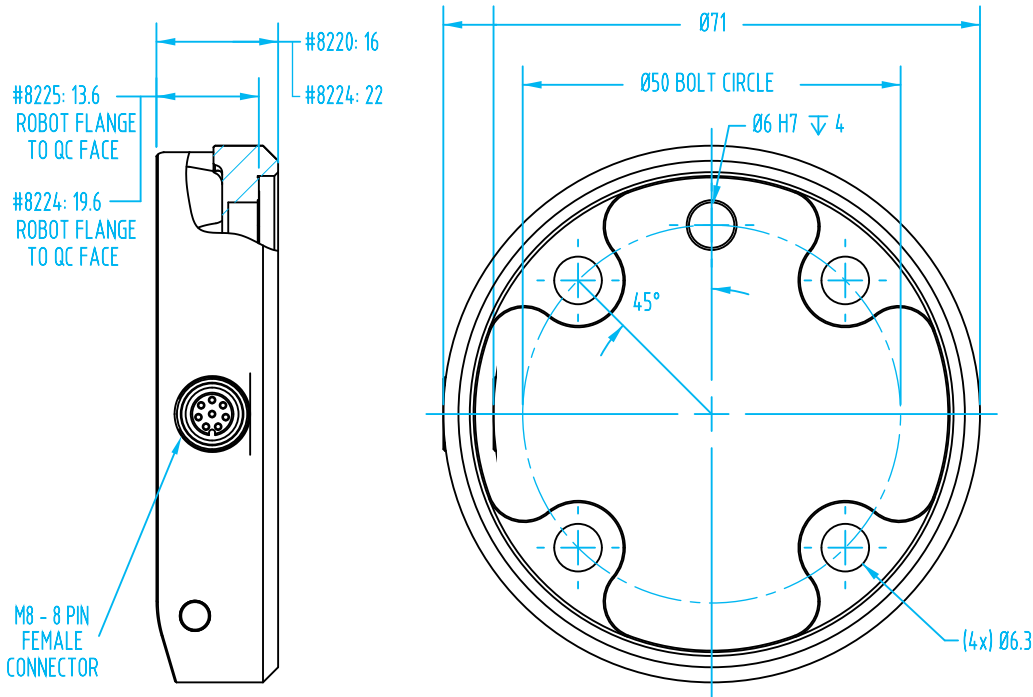
- \*Required to use Q#8220/8225 Quick Changer on eSeries UR and Q#8224 Quick Changer on previous (CB3) UR models to connect directly to the Tool I/O M8 connector.
- \*\*Required to use Q#8220/8225 on Fanuc CRX Tool I/O M8 connector.

## Quick Changer for Collaborative Robots

(Dimensioned drawings shown full scale)

### Robot Side

- #8225 & #8224: M8 8-Pin Tool Flange Connection required for UR Robot, see page 2
- #8225 & #8224 have the same dimensions except for the overall height as noted below.

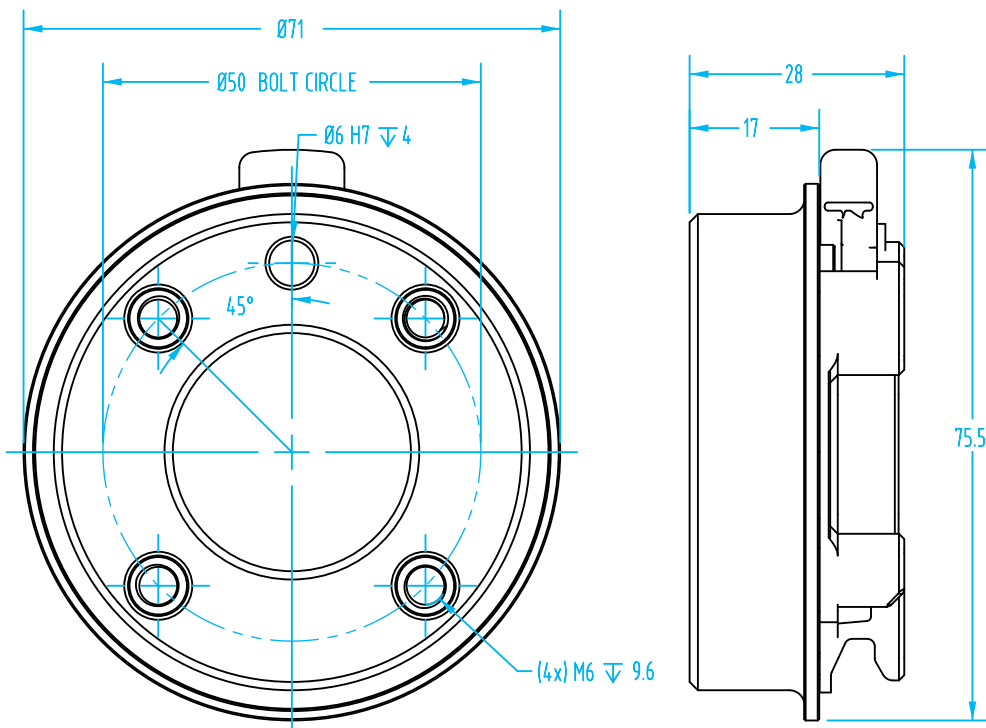


#8225  
Robot Side, 4.5a compatible



#8224  
Robot Side, for CB Series UR  
Not compatible with eSeries UR

### EOAT Side



#8221  
EOAT Side

## Dual Quick Changer for Cobots

The Dual Quick Changer enables you to use two end-of-arm tools together in a single cycle. With this innovative solution you can use two grippers or vacuum units. Quickly and seamlessly switch between tools to maximize the utilization of your robots.



Quick#	Part#	Weight	Price
8222	OR-109878	0.41kg / 0.76lbs	<a href="#">CLICK HERE</a>

- Easy and fast change of tools.
- High repeatability.
- Requires a Compute Box for all applications and robot models.
- Compatible with ISO 9409-1-50-4-M6 mounting interface.
- Up to 20kg (44lb) payload.



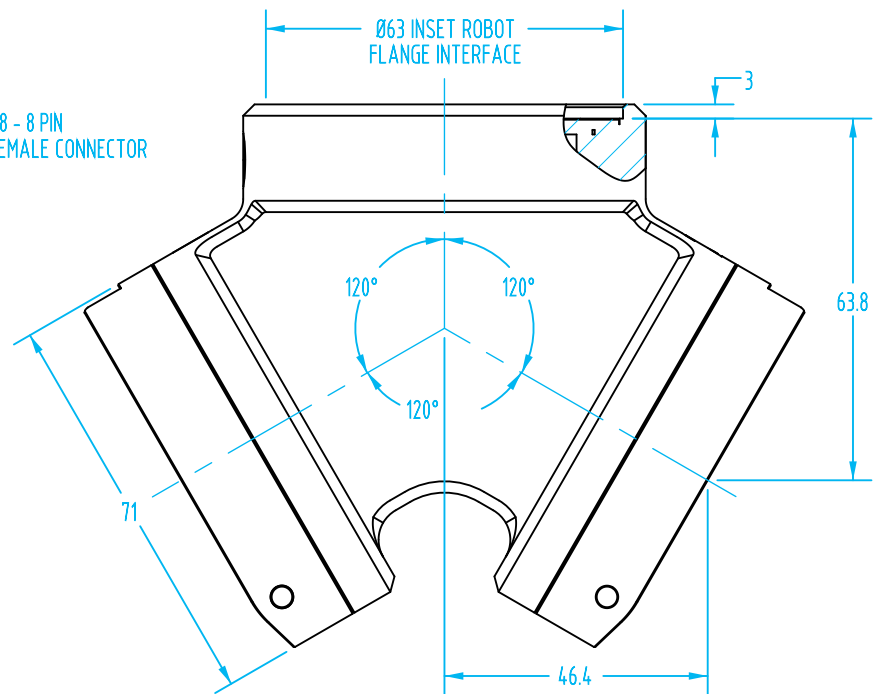
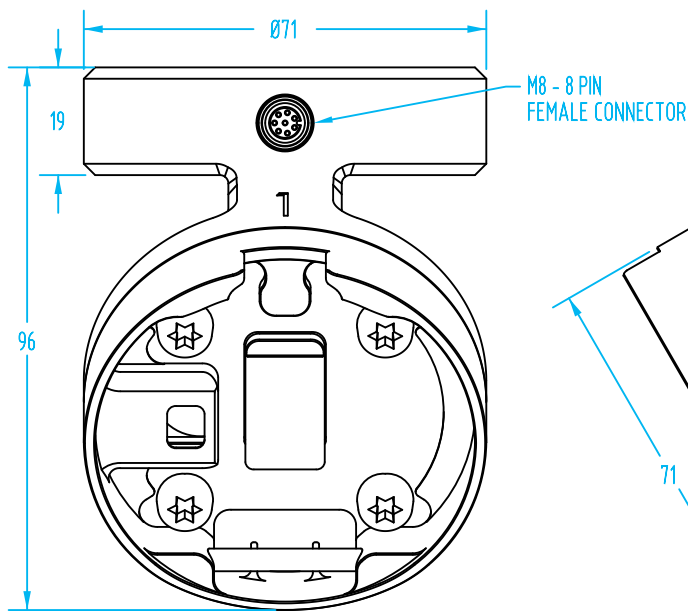
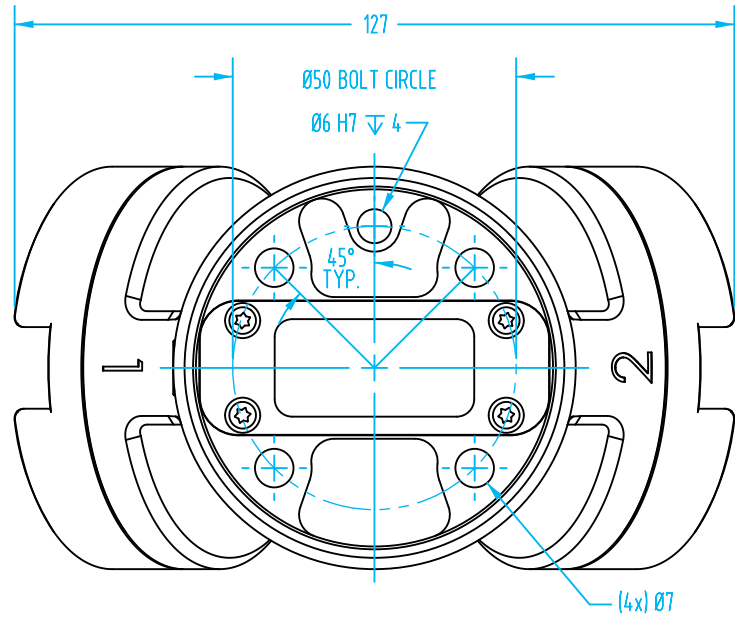
Custom 3D printed EOAT & RG2 flocked fingers



Machine tending configuration on a Doosan Cobot.

## Dual Quick Changer for Cobots

(Dimensioned drawings shown 75% scale)



### Replacement Cable Relief for Dual QC



Cable Relief for Dual QC

Quick#	Part#	Price
8242	OR-102919	<a href="#">CLICK HERE</a>

- Direct OEM replacement of the 3D printed cable relief found on Q#8222 Dual Quick Changer for Cobots.
- Contact EMI if you need additional Cable Management solutions for your Cobot.

## Hex-E Quick Changer Force/Torque Sensor



Quick#	Part#	Wt.	Price
8223	OR-102111	0.347kg / 0.76lbs	<a href="#">CLICK HERE</a>

- **Plastic applications include degating, and insert loading using the advanced control and force feedback.**
- Common applications are polishing, sanding, deburring, grinding and assembly, but it can also be used for teach-in and crash detection.
- Unique optical based technology allows for high precision and repeatability.
- Keeps constant force while moving.
- Easy to use interface, no programming skills are needed (UR only).
- Integrated software.

OnRobot's 6-axis force torque sensor provides an accurate force and torque measurement along all 6 axes. This gives you precise control when it comes to difficult jobs. Additionally, the HEX software includes path recording, force control (on UR and Kuka) and special features for insertion tasks (UR only). This means reduced integration time for your production line. The sensors are designed to fit most of the current industrial robot arms.

Utilizing the included URCap HEX commands, you can teach your robot the exact location, force and speed of operations such as **insert-loading** and **degating** of larger gates.

Technical Specs	Fx & Fy	Fz	Tx & Ty	Tz
Nominal capacity (N.C.)	200 N	200 N	10 Nm	6.5 Nm
Single axis deformation at N.C. (typical)	±1.7mm	±0.3mm	±2.5mm	±5mm
Single axis overload	500%	500%	500%	500%
Signal noise* (typical)	0.035 N	0.15 N	0.002 Nm	0.001 Nm
Noise-free resolution (typical)	0.2 N	0.8 N	0.01 Nm	0.002 Nm
Full scale nonlinearity	< 2%	< 2%	< 2%	< 2%
Hysteresis (measured on Fz axis, typical)	< 2%	< 2%	< 2%	< 2%
Crosstalk (typical)	< 5%	< 5%	< 5%	< 5%

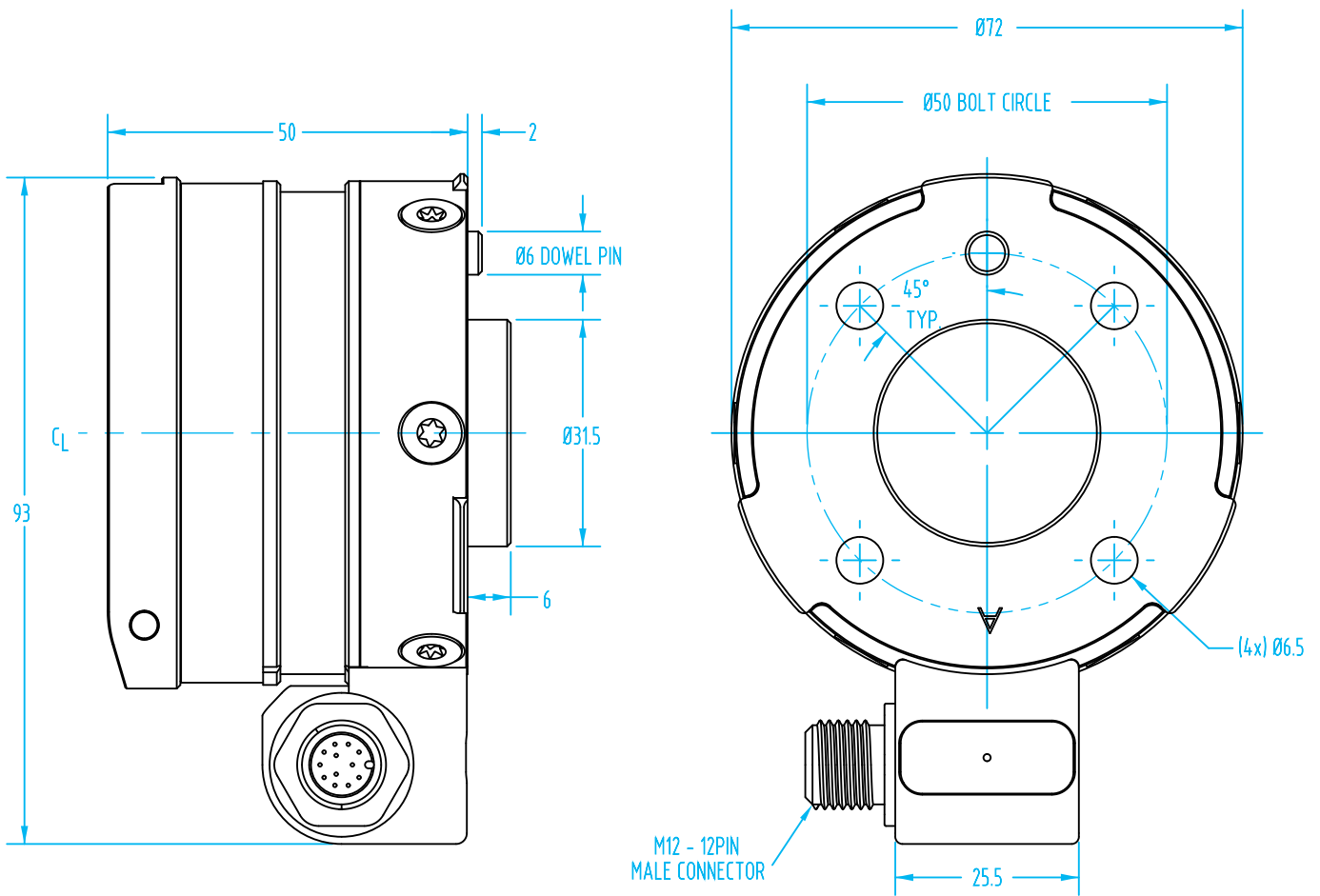
\* Signal noise is defined as the standard deviation ( $1\sigma$ ) of a typical one second no-load signal.

Operating Conditions	
Power supply	7V- 24V
Maximum current consumption	0.8W
Operating temperature	32° - 131°F



### Hex-E Quick Changer Force/Torque Sensor

(Dimensioned drawings shown full scale)



OnRobot HEX Force / Torque Sensor with Gimatic Hot Blade (Q#7286). Degrate by teaching your cobot the gate location, force required and part geometry.

## RG2 Adaptive Gripper



The RG2 gripper is an adaptive gripper packed with features that make it the ideal gripper for Collaborative applications. It includes a built-in Quick Changer, adjustable stroke and grip force, finger tips, and software that makes it easy to use.

Seamlessly click it into the Robot Side Quick Changer, Dual Quick Changer or Hex Force/Torque Sensor QC. Compatible with a wide variety of cobots using the wrist connector or Compute Box.

**Quick# 8201**  
OR-102012  
**PRICE: [CLICK HERE](#)**

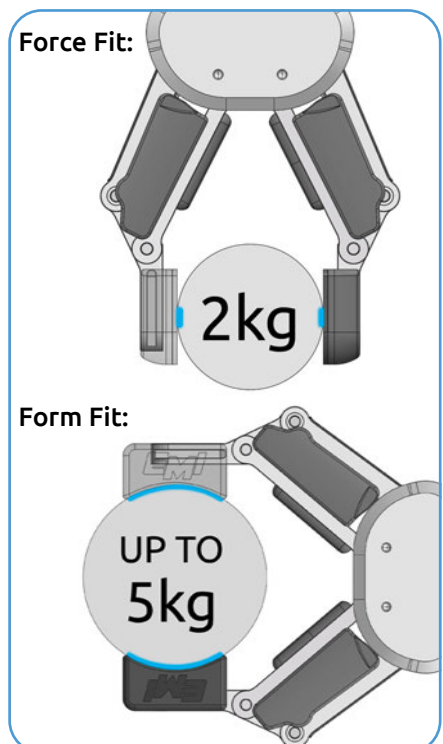
### Features:

- **Adjustable Stroke (with stock fingers): 0–110mm.**
- **Payload with Stock Fingers (force fit): 2kg.**  
**Payload with Custom Fingers (form fit): up to 5kg.**
- Weight: 0.78kg / 1.72lbs.
- Grip indications (part confirmation).
- Custom fingers available from EMI.
- Automatic tool center point (TCP) calculation, depth compensation, and payload calculation for UR.
- Integrated software.
- +/-90° Angular adjustments built into device in 30° Increments.
- Dimensional drawings available online.

Technical Specs	
Adjustable stroke (w/ stock fingers)	0–110mm
Payload with stock fingers (force fit)	4.4 lb (2 kg)
Payload with custom fingers (form fit)	11.02 lb (5 kg)
Finger position resolution	± 0.1mm
Repetition accuracy	± 0.1mm– 0.2mm
Reversing backlash	± 0.1mm – 0.3mm
Gripping force (adjustable)	3 – 40 N (0.7 – 9 lbf)
Gripping force deviation	+/-25%
Gripping speed	38mm – 127mm /second
Gripping time*	0.06s – 0.21s
Adjustable bracket tilting accuracy	less than 1°
Storage temperature	32° – 122°F
Weight	780g (1.72 lb)
Power supply	20V – 25V
Current consumption**	10mA –600mA
Operating temperature	41° – 122°F

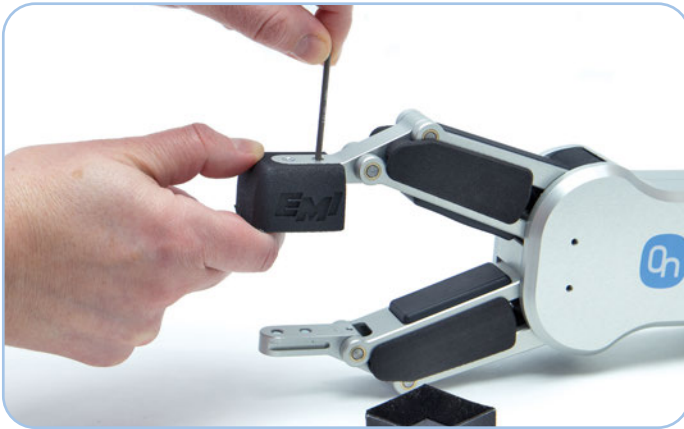
\* Based on 8mm total movement between fingers. The speed is linearly proportional to the force.

\*\*Current spikes up to 3A (max 6mS) may occur during the release action.

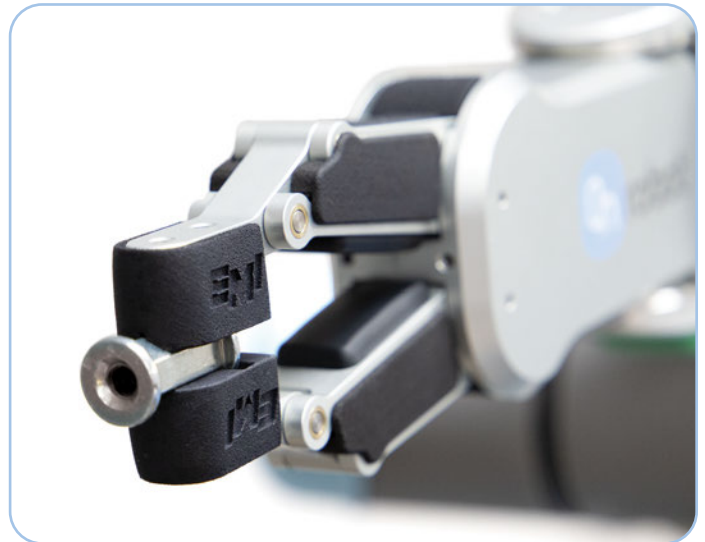


## RG2 Adaptive Gripper

### Easy finger tip replacement



### Perfect for insert-loading applications



OnRobot's RG2 gripper has a dovetail style finger tip which enables you to use custom finger made for your application(s).

### Replacement and optional RG2 items:



#8240



#8272



#8274



Quick#	Part#	Description	Price
8240	OR-100669	Standard Finger Tip	<a href="#">CLICK HERE</a>
8272	OR-105871	X-Shape Finger Tip	<a href="#">CLICK HERE</a>
8274	OR-106959	50mm Finger Extension	<a href="#">CLICK HERE</a>
8275	OR-106960	100mm Finger Extension	<a href="#">CLICK HERE</a>

Note: See EMI website for dimensional drawings.

Contact EMI for Custom Fingers: [Cobots@EMInc.com](mailto:Cobots@EMInc.com)

## RG6 Adaptive Gripper



OnRobot's RG6 adaptive gripper is a powerful adaptive gripper with features that make it the ideal gripper for Collaborative and Industrial Applications. It includes a built-in Quick Changer, adjustable stroke and grip force, finger tips, and software that makes it easy to use.

Seamlessly click it into the Robot Side Quick Changer, Dual Quick Changer or Hex Force/Torque Sensor QC. Compatible with a wide variety of cobots using the wrist connector or Compute Box.

**Quick# 8202**  
**OR-102021**  
**PRICE: [CLICK HERE](#)**

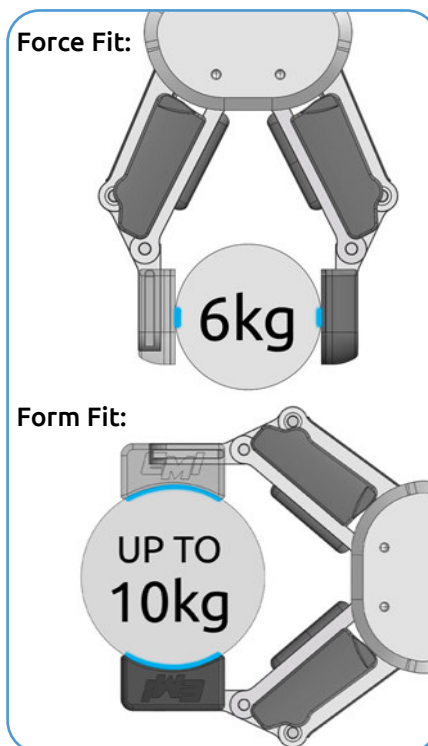
### Features:

- **Adjustable Stroke (with stock fingers): 0–160mm.**
- **Payload with Stock Fingers (force fit): 6kg.**  
**Payload with Custom Fingers (form fit): up to 10kg.**
- Weight: 1.25kg / 1.76lbs.
- Grip indications (part confirmation).
- Custom fingers available from EMI.
- Automatic tool center point (TCP) calculation, depth compensation, and payload calculation for UR.
- Integrated software.
- +/-90° Angular adjustments built into device in 30° Increments.

Technical Specs	
Adjustable stroke (w/ stock fingers)	0–160mm
Payload with stock fingers (force fit)	13.22 lb (6 kg)
Payload with custom fingers (form fit)	22.04 lb (10 kg)
Finger position resolution	± 0.1mm
Repetition accuracy	± 0.1mm – 0.2mm
Reversing backlash	± 0.1mm – 0.3mm
Gripping force (adjustable)	25 – 120 N (5.6 – 27 lbf)
Gripping force deviation	+/-25%
Gripping speed	51mm – 160mm /second
Gripping time*	0.05s – 0.15s
Adjustable bracket tilting accuracy	less than 1°
Storage temperature	32° – 122°F
Weight	1250g (1.76 lb)
Power supply	20V – 25V
Current consumption**	70mA – 600mA
Operating temperature	41° – 122°F

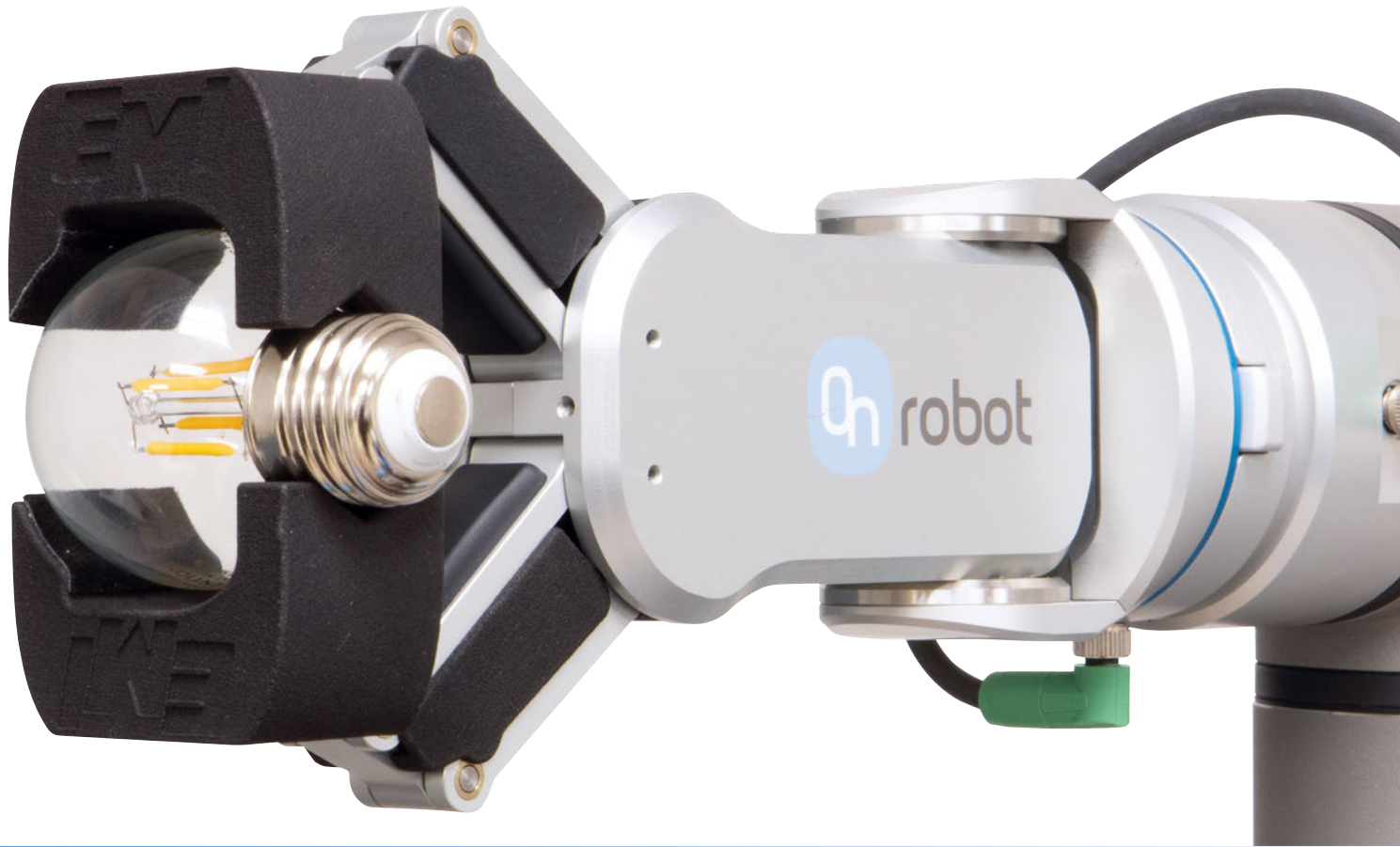
\* Based on 8mm total movement between fingers. The speed is linearly proportional to the force.

\*\*Current spikes up to 3A (max 6mS) may occur during the release action.



## RG6 Adaptive Gripper

Custom fingers with soft-touch flocking available.  
Contact EMI about 3D printed fingers.



### Replacement and optional RG6 items:



#8241



#8273



#8276



Quick#	Part#	Description	Price
8241	OR-100670	Standard Finger Tip	<a href="#">CLICK HERE</a>
8273	OR-106957	X-Shape Finger Tip	<a href="#">CLICK HERE</a>
8276	OR-106966	50mm Finger Extension	<a href="#">CLICK HERE</a>
8277	OR-106967	100mm Finger Extension	<a href="#">CLICK HERE</a>

Note: See EMI website for dimensional drawings.

[Use Quick#s for easy online ordering.](#)

## 2FG7 Parallel Gripper for Cobots



OnRobot's 2FG7 is a complete, off-the-shelf electric parallel gripper that can be deployed within minutes and requires no custom engineering for installation, programming, or maintenance.

This strong parallel gripper can be used in tight spaces and handles demanding payload requirements.

**Quick# 8204**  
**OR-106376**  
**PRICE: [CLICK HERE](#)**

### Features:

- Grip detection / lost grip detection.
- Integrated software.
- Ready for use almost anywhere, with IP67 rating for harsh environments and ISO Class 5 certification for cleanroom use.
- Visit our website for dimensional drawings and replacement parts.

Technical Specs	
Total OD stroke (w/ stock fingers)	1-73mm
Total ID stroke (w/ stock fingers)	11-83mm
Payload with stock fingers (force fit)	15.43 lb (7kg)
Payload with custom fingers (form fit)	24.25 lb (11kg)
Repetition accuracy	± 0.1mm
Gripping force (adjustable)*	20 – 140 N (4.5 – 31.5 lbf)
Gripping force deviation	+/- 5%
Gripping speed**	16mm – 450mm /second
Gripping time***	200ms
Storage temperature	32° – 140°F
Weight	1100g (2.4 lb)
Power supply	20V – 25V
Max. Current consumption****	2000mA
Operating temperature	41° – 122°F

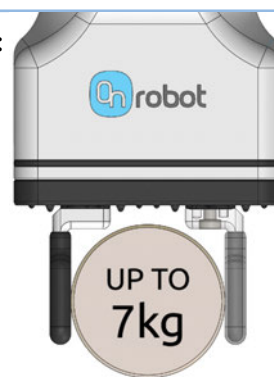
\* The required current is 2000 mA, less current will result in less gripping force.

\*\* Relatively from the gripping object (both arms).

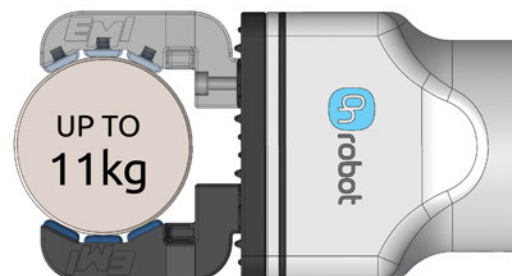
\*\*\* At 4 mm stroke and 80 N. The typical value is 300 ms at 40 mm and 80 N.

\*\*\*\*Automatically adapts to the current requirements when UR CB3 tool connector is used (600mA).

### Force Fit:



### Form Fit:



## 2FG7 Parallel Gripper for Cobots



**Advanced Features,  
Easy Programming!**



Shown with custom 3D printed fingers available from EMI.

## 3FG15 Three-Jaw Gripper for Cobots



The 3FG15 is ideal for gripping a wide range of cylindrical objects in machine-tending applications such as CNC lathe machines.

The gripper's design automatically centers workpieces, resulting in fast deployment with a strong, stable grip and precise placement.

**Quick# 8203**  
**OR-103666**  
**PRICE: [CLICK HERE](#)**

### Features:

- Grip indications (part confirmation).
- Custom fingers available from EMI.
- Automatic tool center point (TCP) calculation, depth compensation, and payload calculation for UR.
- Integrated software.
- IP67 rating for harsh environments and ISO Class 5 certification for cleanroom use.
- Dimensional drawing can be found online.
- In-stock replacement parts available.

Technical Specs	
Total OD stroke (w/ stock fingers)	4–152mm
Total ID stroke (w/ stock fingers)	35–176mm
Payload with stock fingers (force fit)	22.04 lb (10 kg)
Payload with custom fingers (form fit)	33.06 lb (15 kg)
Finger position resolution	±0.1mm
Repetition accuracy	± 0.1mm–0.2mm
Gripping force (adjustable)*	10 – 240 N (2.25 – 54 lbf)
Gripping force deviation	+/- 5%
Gripping speed**	125mm
Gripping time***	500ms
Storage temperature	32° – 140°F
Weight	1500g (2.5 lb)
Power supply	20V – 25V
Max. Current consumption****	1500mA
Operating temperature	41° – 122°F

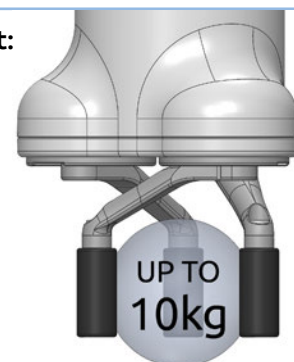
\* The required current is 2000 mA, less current will result in less gripping force.

\*\* Relatively from the gripping object (both arms).

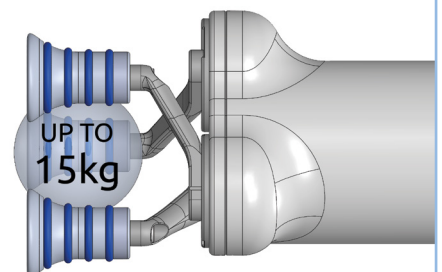
\*\*\* At 4 mm stroke and 80 N. The typical value is 300 ms at 40 mm and 80 N.

\*\*\*\*Automatically adapts to the current requirements when UR CB3 tool connector is used (600mA).

### Force Fit:



### Form Fit:





## MAG10 Magnet Gripper



OnRobot's MG10 is a versatile, easy to use magnetic gripper for material handling, assembly and machine tending applications in manufacturing, automotive and aerospace environments.

Fully compatible with all major robot brands through OnRobot's One System Solution, the MG10 offers unique adjustable force and grip detection features that provide users with unprecedented levels of control.

**Quick# 8212**  
**OR-105202**  
**PRICE: [CLICK HERE](#)**

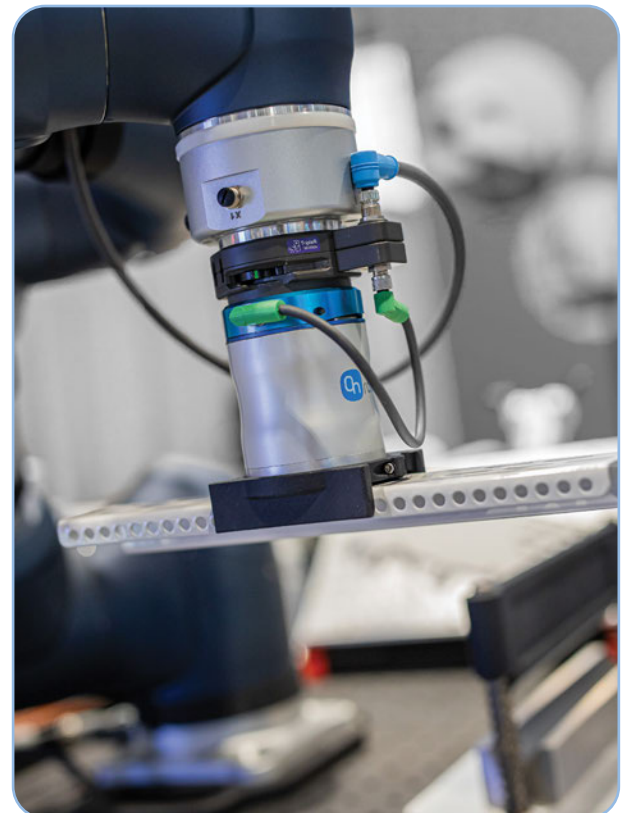
### Features:

- Reliable gripping with variable force.
- Built-in proximity sensor to automatically detect the workpiece.
- Includes exchangeable fingertips for handling cylindrical objects (shown below) and protective pads (shown above).
- Safe, consistent grip even after power loss.
- Integrated software.
- No compressed air needed.
- EMI can provide a 3D printed parts nest (shown below).

Technical Specs	
Payload	0.002–22.046 lb (0.001–10 kg)
Workpiece size	Ø65.4mm (Ø2.574 in)
Magnetism resolution	100 steps
Gripping time	300 ms
Storage temperature	32–131°F (0–55°C)
IP Classification	IP67
Weight	800g (1.763 lb)



*Shown with v-shape nesting tips for cylindrical objects.*



## Soft Gripper Actuator for Cobots



The OnRobot Soft Gripper is able to pick a wide array of irregular shapes and delicate items, making it **ideal for pick-and-place applications**, as well as manufacturing or packaging.

The gripper is available with three interchangeable silicon-molded cups. The Soft Gripper operates without an external air supply, for no additional costs or complexity.

**Quick# 8280**  
**OR-103456**  
**PRICE: [CLICK HERE](#)**

### Features:

- Actuator base weight: 0.77kg / 1.69lbs
- Actuator base dimensions: 84mm x 98mm.
- Smart lock tool mechanism and quick changer base included.
- Maximum payload of 2.2 kg depends on shape, softness, and friction of items to be handled, and grip dimensions range from 11mm to 118mm, depending on cup used.
- IP 67 Classification.
- Silicone is FDA 21 CFR 177.2600\* & EC 1935/2004 approved.
- Integrated software.
- Automatic tool center point (TCP) calculation, depth compensation, and payload calculation for UR.
- Dimensional drawings available online.

Technical Specs	
Total spindle stroke	11–40mm
Spindle force	380 N (85.4 lbf)
Spindle speed	37mm/s (1.46in/s)
Maximum rated payload	Dependant on end effector (see next page)
Gripping time*	32 grip/min
Weight	77g (1.69 lb)
Power supply	20V – 25V
Current consumption	45mA – 600mA
Operating temperature	32° – 122°F

\* Gripping time is tool depended.



## Soft Gripper Actuator for Cobots



### Gripper Modules for Soft Gripper Actuator

Quick#	Part#	Description	Max Payload*	Gripping Range	Price
8281	OR-103689	Soft	4.85 / 3.3 lb (2.2 / 1.5 kg)	11–75mm	<a href="#">CLICK HERE</a>

\* Test object: 3D-printed ABS cylinder Ø65mm. Payload depends on shape, softness, and friction of the product.



### Gripper Modules for Soft Gripper Actuator

Quick#	Part#	Description	Max Payload*	Gripping Range	Price
8282	OR-103860	Extra Soft	4.85 / 3.3 lb (2.2 / 1.5 kg)	11–75mm	<a href="#">CLICK HERE</a>

\* Test object: 3D-printed ABS cylinder Ø65mm. Payload depends on shape, softness, and friction of the product.



### Gripper Modules for Soft Gripper Actuator

Quick#	Part#	Description	Max Payload*	Gripping Range	Price
8283	OR-103691	Claw	2.42 lb (1.1 kg)	24–118mm	<a href="#">CLICK HERE</a>

\* Test object: 3D-printed ABS cylinder Ø65mm. Payload depends on shape, softness, and friction of the product.

## VGC10 Customizable Vacuum Gripper



With a 33lbs payload, dual vacuum channels, built-in Quick Changer and Electric Vacuum Generator, the VGC10 is the next level of Vacuum EOAT for Cobots. Coupled with EMI's EOAT framing, vacuum cups selection, 3D print capabilities and Engineering services, OnRobot's VGC10 is a powerful Vacuum EOAT solution.

**Quick#8211**  
**OR-102844**  
**PRICE: [CLICK HERE](#)**

### Features:

- Two independent LH/RH air channels for dual gripping is helpful for handling plastic molded parts.
- Flexible electric vacuum gripper with unlimited customization fits all your application needs.
- Compact, lightweight gripper is perfect for tight spaces but with plenty of power for objects up to 15kg.
- Built-in electric vacuum generator.
- No external air supply needed.
- Weight: 0.814kg / 1.79lbs.
- Integrated software.
- Dimensional drawings available online.

Technical Specs	
Vacuum	5%– 80% Vacuum (1.5Hg – 24Hg)
Air flow	12 L /min (0.42 CFM)
Max. payload w/ default attachments*	13.2 lb (6 kg)
Max. payload w/ custom attachments*	33.1 lb (15 kg)
Gripping time	0.35 seconds
Releasing time	0.20 seconds
Weight	814g (1.79 lb)
Power supply	20.4V – 28.8V
Current consumption	50mA – 1500mA
Operating temperature	32° – 122°F

\* When using three 40mm cups (more info in the table). Number of cups needed for non-porous materials varies depending on payload and vacuum.



#8271

## VGC10 Customizable Vacuum Gripper

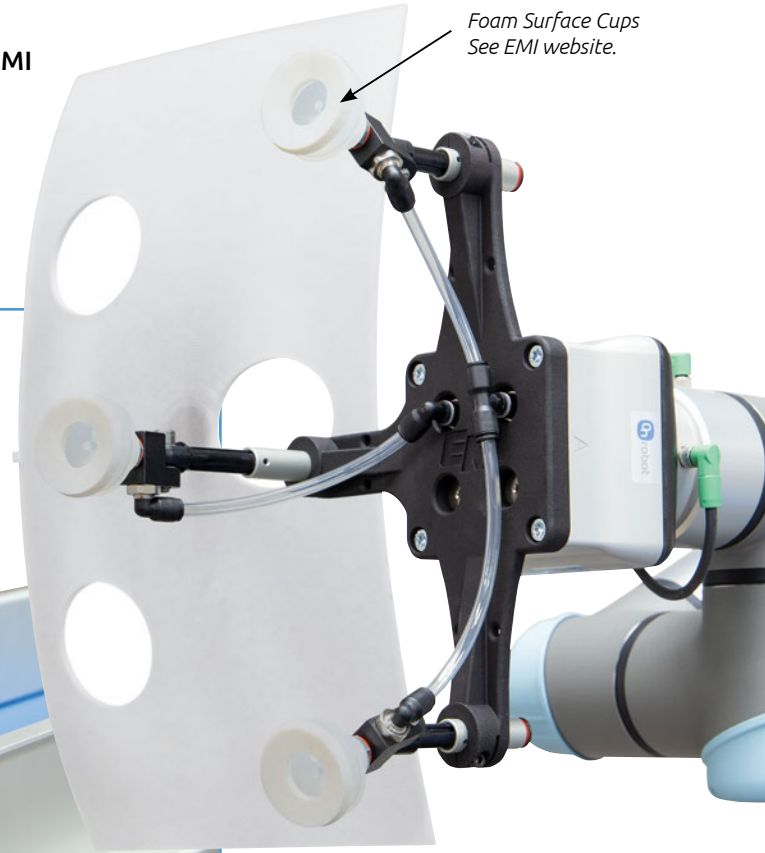
### Custom 3D Printed EOAT and Cobot Ready Conveyor by EMI

EMI's Cobot Ready Conveyors are designed to be integrated with your Universal Robot to provide continuous part transfer and are ideal for pick and place, machine tending, and packaging applications.

**Electric Vacuum with Molders in Mind!**



Foam Surface Cups  
See EMI website.



### Custom mounting plates and EOAT by EMI

Have a specialty application that requires a custom vacuum gripper? Contact us to discuss! In-stock mounting plates are also available, see website for more information.

#### VGC10 Mounting Plates for EOAT

Quick#	Part#	Description	Wt.	Price
8271	CRM-0241-VGC10-4	Collaborative Plate (120 x 120mm)	105g	<a href="#">CLICK HERE</a>
8270	CRM-0241-VGC10-1	Laser Cut Plate (125 x 150mm)	225g	<a href="#">CLICK HERE</a>

#### OnRobot VG Gripper Filter Kit

Quick#	Part#	Price
8243	OR-100064	<a href="#">CLICK HERE</a>

#### Box Includes:

- Manual with instructions
- 16x Input filters
- 16x Filter fittings
- 16x O-rings
- Output filter
- O-ring for output filter
- Retaining ring
- 14mm spanner
- 3mm Hex key
- Loctite®



## VG10 Electric Vacuum Gripper with Dual Zone



VG10 is an Electric Vacuum EOAT that requires no additional cables, tubes or manifolds. It has two vacuum channels that make it ideal for plastic part handling, packaging operations and a variety of Collaborative Applications without a pneumatic source.

With 16 vacuum ports, included fittings, plugs, swiveling arms that give you up to a 400mm footprint, built-in Quick Changer, the VG10 is a next generation Vacuum EOAT that enables you to start producing with minimal setup time and accessories.

**Quick# 8210**  
**OR-101661**  
**PRICE: [CLICK HERE](#)**

### Features:

- Two independent LH/RH air channels for dual gripping is helpful for handling plastic molded parts.
- No external air supply required.
- Seamless integration with the robot of your choice.
- Weight: 1.62kg / 3.57lbs.
- Integrated software.
- Configurable vacuum cups, up to 16 cups can be used with 8 per vacuum channel.
- Built-in electric vacuum generator.
- Can hold up to 33lbs.
- Four (4) swivelling arms.
- Dimensional drawings available online.

Technical Specs	
Vacuum	5%– 80% Vacuum (1.5Hg – 24Hg)
Air flow	12 L /min (0.42 CFM)
Arms adjustment	0° – 270°
Arm holding torque	6 Nm (4.4 ft-lbf)
Maximum rated payload	33 lb (15 kg)
Gripping time	0.35 seconds
Releasing time	0.20 seconds
Weight	1620g (3.57 lb)
Power supply	20.4V – 28.8V
Current consumption	50mA – 1500mA
Operating temperature	32° – 131°F



## VG10 Electric Vacuum Gripper with Dual Zone

The VG10 uses the separate vacuum channels to control the left hand and right hand cavities separately. Hithane® vacuum cups are recommended for parts that may be painted or chromed.



In-Stock OnRobot from EMI!

## VGP20 Electric Vacuum Gripper with Quad Zone



**Quick# 8213**  
**OR-107242**  
**PRICE: [CLICK HERE](#)**

### Features:

- Industry's most powerful electric vacuum gripper.
- Highly versatile gripper with unlimited customization possibilities fits many applications.
- Built-in intelligence and multichannel functionality ensure fail-safe, flexible operation.
- Complete out-of-the-box vacuum gripper offers fast, easy deployment with any leading robot.
- Powerful, flexible gripper is ideal for porous and non-porous surfaces.
- Sixteen Ø40mm vacuum cups are included with a total 450mm footprint. Many other cup options are available, see EMI's website.
- A compute box is required to use this gripper on an robot platform.

Technical Specs	
Vacuum	5%– 60% Vacuum (1.5Hg – 17.95Hg)
Air flow total	48 L /min (1.7 CFM)
Air flow on each channel	12 L /min (0.42 CFM)
Maximum rated payload*	44 lb (20 kg)
Gripping time**	0.25 seconds
Releasing time	0.40 seconds
Weight	2550g (5.62 lb)
Power supply	20.4V – 28.8V
Current consumption	50mA – 4500 mA
Operating temperature	32° – 122°F

\* Cardboard is recommended up to 10 kg. 20 kg payload can be achieved with low accelerations (0.2G added to 1G; 1G = gravity = 9.82 m/s<sup>2</sup>). Other conditions may apply.

\*\* The gripping time can be shortened with smaller or less suction cups. The release time depends on the payload. With high payload, you can achieve fast release time.



*Shown with a Gimatic tilt unit and roller for a label placement application.*



## 2FGP20 Palletizing Gripper with Vacuum Handling



OnRobot's 2FGP20 is a highly versatile palletizing gripper with wide stroke and customizable arms handles heavy or open boxes, shelf-ready products and other containers that can't be gripped with vacuum.

Integrated vacuum gripper handles slip sheets without changing the gripper or requiring other handling method.

**Quick# 8205**  
**OR-108585**  
**PRICE: [CLICK HERE](#)**

### Features:

- Off-the-shelf gripper saves significant engineering effort and shortens deployment time.
- Electric gripper offers fast out-of-the-box deployment without the complexity and costs of external air supply.
- Gripper will hold workpiece in case of powerloss.
- Integrated electric BLDC motor included.
- Vacuum unit includes integrated 50µm field replaceable dust filters.
- IP54 Classification.
- Base unit weight with standard fingers and pads: 5.07kg (11.18 lb).
- Base unit weight with standard fingers, pads and all vacuum equipment: 5.34kg (11.77 lb).
- A compute box is required to use this gripper on an robot platform.

Technical Specs	
Vacuum	5%– 60% Vacuum (1.5Hg – 17.95Hg)
Air flow (Total)	12 L /min (0.42 CFM)
Total stroke	260mm (10.24 in)
Maximum rated payload	44 lb (20 kg)
Gripping time*	600ms
Gripping speed**	16–180 mm/s
Gripping force***	80–400 N (18 – 89.9 lbf)
Power supply	20V – 25V
Current consumption	2000 mA
Operating temperature	41° – 122°F

\* Includes brake action

\*\* At 6mm stroke and 150N. The typical value is 900ms at 200mm and 200N.

\*\*\*See EMI website for Force vs Current Graph.



## OnRobot Compute Box

### Powerful, Simple, Versatile

OnRobot Grippers are compatible with a wide variety of Robots using the Compute Box to communicate via Ethernet or Digital I/O interface. The Compute Box is also required for OnRobot’s more advanced products: Dual QC, HEX Force/Torque Sensor.

OnRobot’s WebLogic App can also be accessed through a computer to program your gripper remotely through Ethernet or while on the robot if you are using Digital I/O.



#### Ethernet



#### Digital I/O



#### OnRobot’s Compute Box is needed with:

- All OnRobot Grippers to be used on robots other than UR®:
  - Doosan®                      Kuka®                      Kawasaki®
  - Hanwha®                      Fanuc®                      Nachi®
  - Techman Robot®              Yaskawa®                  Other
- Dual Quick Changer on any robot, including UR.
- Hex Force/Torque Sensor on any robot, including UR.
- A computer to access WebLogic App.

#### Box Includes:

- Compute box
- 5m Cable (M12 to M8)
- UTP Cable (RJ45 to RJ45)
- Power supply
- USB stick
- 4x Cable strap
- 3x Terminal blocks
- 8x I/O Wires

#### OnRobot Compute Box

Quick#	Part#	Description	Price
8231	OR-113761	Works with Various Robot Models. Interface plates sold separately.	<a href="#">CLICK HERE</a>



[www.youtube.com/EMICorpVideo](http://www.youtube.com/EMICorpVideo)

**Visit and subscribe to EMI’s YouTube channel to watch the latest videos!**

## Adaptor Plates and Brackets



90° Offset Bracket

Quick#	Part#	Weight	Price
8279	OR-105870	207g	<a href="#">CLICK HERE</a>



45° Offset Bracket

Quick#	Part#	Weight	Price
8289	OR-113375	257g	<a href="#">CLICK HERE</a>



Plate K for Techman / Omron with ISO 9409 Mounting Pattern

Quick#	Part#	Weight	Price
8269	OR-101850	151g	<a href="#">CLICK HERE</a>



The OnRobot Angle Offset Brackets enable you to attach tools at a 45 or 90 degree angle from the robot flange. This improves the tool's ability to fit into tight spaces and it can lower the risk of the robot arm going into singularity.

- Machined aluminum.
- Fasteners included.
- Can mount to any robot with ISO-9409-1-50-4-M6 mounting pattern.
- Compatible with any gripper that mount to the wrist.
- Dimensional drawings available online.
- Contact EMI if you need a custom offset adapter for your gripper.

## Replacement Vacuum Cups and Components

Only EMI gives you this wide of a selection of in-stock vacuum cup brands specifically suited for use on EOAT. Any of our vacuum cups with G1/8 fittings can be used on the VG10 and VGC10. Use our website to quickly search over 750 different EOAT vacuum cups.

Our EOAT Engineers are experts when it comes to selecting the right vacuum cup for the right job and are available to answer any questions.

**Shop Online Here!**

### Foam



Very soft, closed-cell silicone foam vacuum cups for textured surfaces.  
Flat Ø8 – 40mm.  
1.5 Bellows Ø20 – 40mm.

### Gimatic®



Great value!  
Available in two styles: Flat or 1.5 Bellow.  
Four materials: Silicone, EPDM, HNBR, and Natural Rubber.  
Ø11mm – 53mm.

### Apex®



Long lasting, slightly thicker silicone.  
One-nipple-size-fits-all.  
Good quality, basic vacuum cups.  
Flat w/Ribs, 10 – 50mm  
1.5 bellows, 5 – 40mm

### Dual-Durometer



Dual Durometer cups are considered to be the best polyurethane cups for use with EOAT.  
Mark-free, flexible, long-lasting.  
1.5 Bellow, & 2.5 Bellow Ø11 – 75mm.

### Senvex®



One-nipple-size-fits-all Senvex cups make it easy to standardize.  
Nipple-integrated suspensions are also available.  
Available in Silicone and Polyurethane.

### Hithane®



A hybrid, high-temp, non-silicone, non-marking cup for use with hot plastic parts.  
Maximum temperature 320°F.  
Good flexibility.  
Flat, Oval, 1.5 Bellow, & 2.5 Bellow.

### Anti-Static



Anti-Static vacuum cups are typically used in electronic, packaging, and small parts applications.  
Available in Flat, and 1.5 bellows up to Ø16mm.

### OEM Cups



The translucent clear silicone cups are very nice quality.  
Ideal for customers wanting non-colored silicone cups.  
Popular design fits PIAB nipples.  
Non-branded for OEM applications.

### Piab®



Excellent performing silicone. Polyurethane, Chloroprene, and Nitrile.  
Available in Flat, Flat with Ribs, Deep Cups, and 1.5 bellows up to Ø75mm.

### For Carbon Fiber



PTFE vacuum cups do not stick to hot carbon fiber parts.  
Used in applications where needle grippers would puncture and damage the structure of composites.

### Fittings and Reducers



### Vacuum Posts



## EMI's Collaborative Gripper Kits and More!

A wide variety of general purpose grippers for robotic end effectors are available from EMI. We offer high quality, industrial-grade grippers at competitive prices. Parallel grippers and angular grippers are available in double acting, normally open, and normally closed configurations. For general gripping of parts large or small, EMI has the gripper to fit any application.

EOAT often require specialized gripper fingers that EMI engineers can help design based on years of expertise solving customer applications from simple to complex, machined, or 3D printed.

**Shop Online, Click Below!**

**Modular Vacuum Gripper Kit**



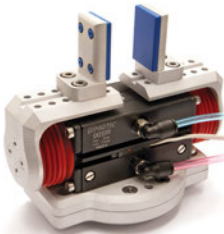
**Modular Vacuum Kit – MPK-2**



**3D Printed Vacuum Gripper Kit**



**Two-Jaw Gripper Kit – SX**



**Two-Jaw Gripper Kit – SGP**



**Machine Tending Gripper Kits**



**Wrist Wrangler**



**Teachable Sensors**



**Tubing, Cables, Connectors**



**Fittings, Adaptors, Plugs**



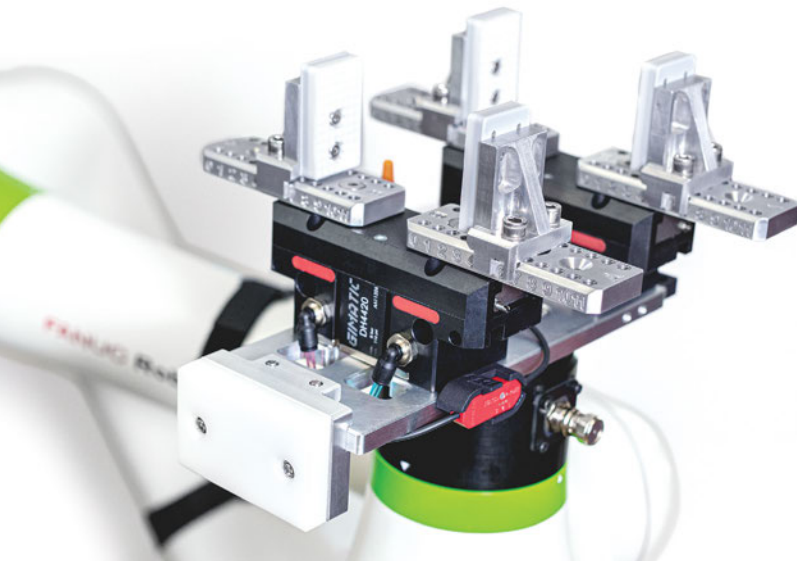
**Cobot Stands**



**Cobot Ready Conveyors**



## Custom EOAT from EMI



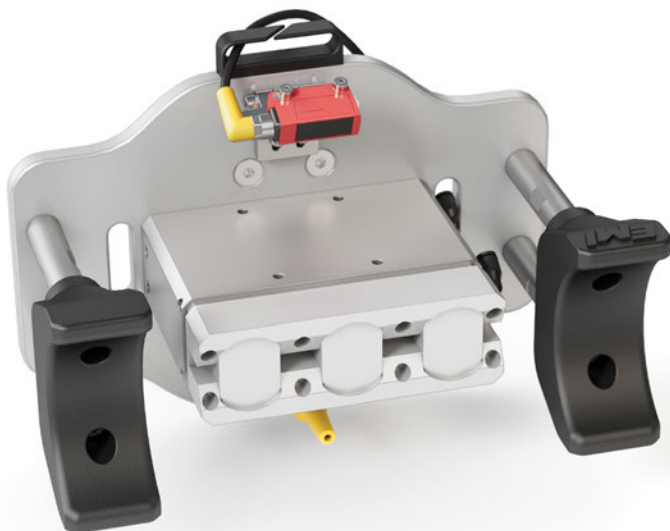
### Features:

- Dual, pneumatic 2-jaw gripper design used on a single work piece for greater stabilization.
- Adjustable, silicone padded fingers for non-marking application.
- Aluminum plate mounts directly to robot.
- Acetal push bar used to open/close drawer mechanism for discharging part.
- Pro-SSR sensor for part detection of various work pieces.



### Features:

- Dual DH parallel grippers with custom fingers.
- Part blow-off. (many options available)
- Direct mount with pass-through for tubing and cables.
- This solution caters to heavy duty machine tending applications at an affordable price.



### Features:

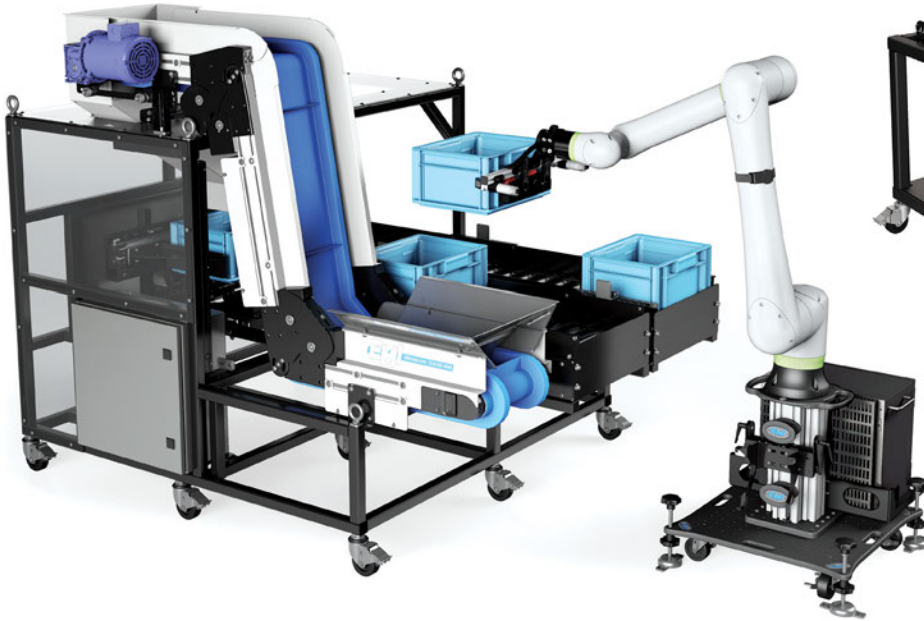
- Pneumatically controlled magnetic gripper used to pick cylindrical work piece.
- 3D Printed nests secure the work piece to ensure alignment.
- Photo sensor for part confirmation.
- Directly mounted to robot.
- Blow-off nozzle to clean work piece after machining operation.

**Find more examples here!**

### Custom EOAT from EMI

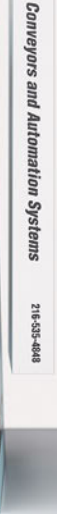
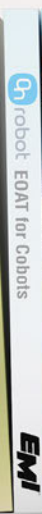
**Everything but the cobot!**

Our Conveyor - Our Cobot Stand - Our End Effector - Our Work Table - Your Cobot



**Shop Cobot Stands here!**





Ask about our other Catalogs!

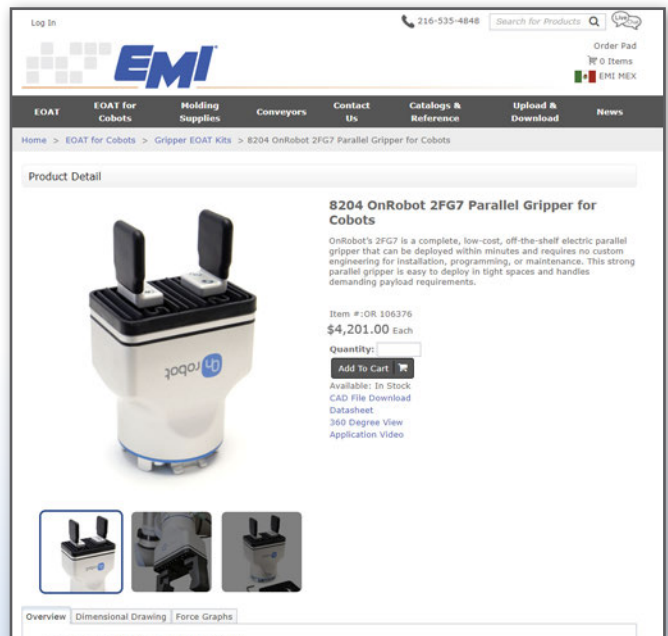


### Easy Online Ordering!

All the Cobot grippers and accessories listed in this catalog can be ordered online!

Product detail pages include all the information you need: datasheets, dimensional drawings, related items, spare parts, and more!

Need assistance with an industrial end effector or custom cobot gripper kit? Email Cobots@EMICorp.com or call 216-535-4848 to get in touch with an experienced engineer.



EMICorp.com



216.535.4848



Live Chat



Sales@EMICorp.com